

COMMONWEALTH OF MASSACHUSETTS  
HEALTH POLICY COMMISSION

---

CHART Phase 2:  
Implementation Plan  
Beverly Hospital

HPC approval date: 10/05/15

Last modified: 9/22/16

Version: 5



# Introduction

This Implementation Plan details the scope and budget for Beverly Hospital’s (“Contractor”) Award in Phase 2 of the Health Policy Commission’s (HPC) Community Hospital Acceleration, Revitalization, and Transformation (CHART) Investment Program. The Implementation Plan is incorporated by reference into and is subject to the requirements of the Phase 2 Award Contract, including the Phase 2 Terms & Conditions.

Many capitalized terms appearing in the Implementation Plan are defined in the Phase 2 Terms & Conditions or the Phase 2 Request for Proposals (RFP). In addition to capitalized terms, the Implementation Plan may include other acronyms and/or abbreviations whose meaning is understood by Contractor and the HPC in the context of the Implementation Plan. If there is disagreement concerning the meaning of a term, acronym, or abbreviation, the HPC’s interpretation shall govern.



# Contents of the Implementation Plan

- Key Personnel
- Target Population(s)
- Aim Statement(s)
- Baseline Performance
- Estimated Monthly Impact
- Driver Diagram
- Service Model
- Service Worksheet
- Service Mix
- List of Service Providers/Community Agencies
- Summary of Services
- Measurement Plan
  - Cohort-Wide Standard Measures
  - Program-Specific Measures
- Continuous Improvement Plan
- Enabling Technologies Plan
- Other Essential Investments
- Key Dates
- Community Partners/Subcontractors
- Deliverables and Reporting
- Payment Plan
- Budget



# Key personnel

Name	Title	CHART Phase 2 Role
Philip M. Cormier	Chief Executive Officer	Executive Sponsor
Cynthia Cafasso Donaldson	Vice President, Addison Gilbert Hospital	Clinical Investment Director
Peter H. Short, MD	Chief Medical Officer	Operational Investment Director
Jean Alden-St. Pierre	Program Manager, High Risk Intervention Team	Project Manager
Connie Woodward	Interim Vice President, Finance	Financial Designee

**Note:** Addison Beverly Hospital (BH) and Addison Gilbert Hospital (AGH) are both part of Northeast Hospital Corporation and owned by Lahey Health System. The clinical programs being implemented at AGH and BH in their CHART Phase 2 hospital-specific awards are nearly identical. Due to the nature of the programs and the hospitals’ corporate structure, there are certain references in each hospital’s Implementation Plan to the other hospital (e.g., shared Key Personnel, Lahey Shared Services team). However, AGH’s and BH’s hospital-specific awards are individual and distinct in all respects under each hospital’s Phase 2 Award Contract, including reporting, payment, and each hospital’s measurement of progress against its Aim Statement for the purposes of calculating the Achievement Payment. (This note does not pertain to the Joint Award in which AGH, BH, Winchester Hospital, and Lowell General Hospital are expected to participate.)

## Definition\*

Patients identified by one or more of the following:

- High utilization ( $\geq 4$  hospitalizations per year)
- Social complexity (substance use disorder, Medicaid, homeless, or Medicare <65)
- 30-day readmissions to inpatient or observation

## Quantification

- 3,000 discharges per year, inclusive of high utilizers
  - 255 high utilizers with 1,267 discharges per year

\* Target population definition includes all payers and ages 18+; excluding OB, deaths, transfers to acute inpatient, and discharge to acute rehab.

# Aim Statement

---

## Primary Aim Statement

Reduce 30-day returns by 20% for patients with a personal history of recurrent acute care utilization, social complexity (substance use disorder, Medicaid, homeless, or Medicare <65), or a 30-day readmission by the end of the 24-month Measurement Period.

## Secondary Aim Statement\*

Reduce 30-day ED returns by 10% for patients with a personal history of acute care utilization, social complexity (substance use disorder, Medicaid, homeless, or Medicare <65), or a 30-day readmission by the end of the 24-month Measurement Period.

## Baseline Performance – Return reduction

Abridged Implementation plan – not for budgeting or contracting purposes

		Nov 14	Dec 14	Jan 15	Feb 15	Mar 15	April 15	May 15	June 15	July 15	Aug 15	Sept 15	Oct 15	Avg.
Hospital-Wide	Returns	98	133	154	124	147	155	143	148	126	129	152	141	<b>137</b>
	Discharges	1009	1086	1136	1014	1144	1129	1086	1064	1064	1152	1157	1186	<b>1102</b>
	Rate (%)	10%	12%	14%	12%	13%	14%	13%	14%	12%	11%	13%	12%	<b>12%</b>
Target Pop	Returns	49	69	83	61	70	87	88	76	79	67	73	74	<b>73</b>
	Discharges	377	405	392	340	386	432	410	394	391	397	389	396	<b>393</b>
	Rate (%)	13%	17%	21%	18%	18%	20%	21%	19%	20%	17%	19%	19%	<b>19%</b>

Beverly Hospital – version 5

# Estimated monthly impact

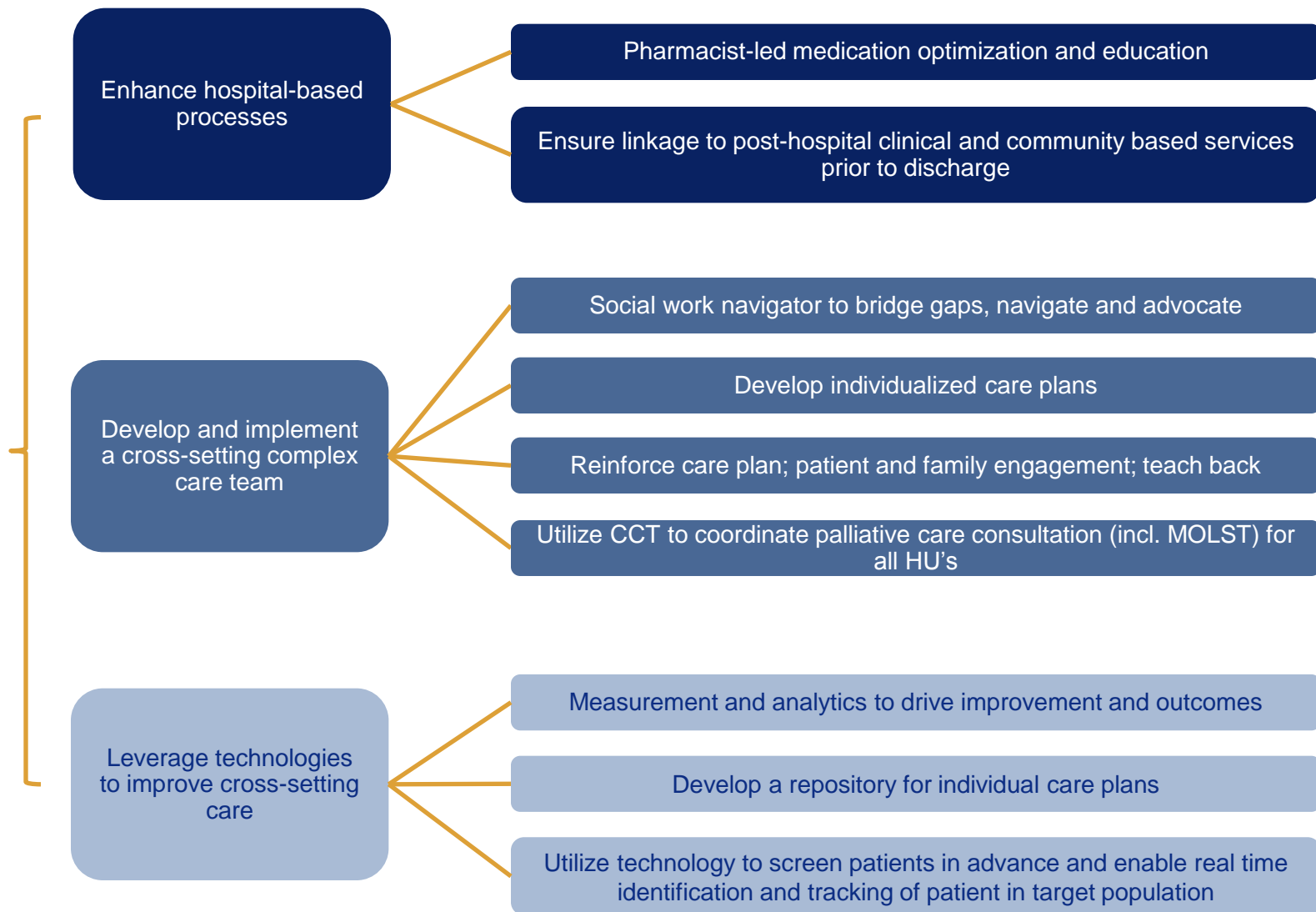
	Current Expected Served	Current Expected	New Expected Avoided Events	New Expected Events
30-day returns reduction	393 inpatient and observation discharges	73 returns	15 returns	58 returns



# Driver Diagram

Abridged Implementation plan – not for budgeting or contracting purposes

Reduce 30-day returns by 20% for patients with a personal history of recurrent acute care utilization, social complexity (substance use disorder, Medicaid, homeless, or Medicare<65), or a 30-day readmission by the end of the 24-month Measurement Period.\*



Beverly Hospital – Version 5

## Service model (1 of 2)

### Narrative description

- Review daily census of admissions, enroll patients who qualify for cohort. Flag in EHR that HRIT is following. Reach out to any other programs patient is enrolled in (ACO, PACE, SCO) to avoid duplication of services.
- Establish, build, and continue therapeutic relationships with each identified member of the target population.
- Patient assessment while in-patient for social history to better understand why the patient felt they had been readmitted.
- Assess gaps and barriers in care through interactions with patient and family, case managers and social workers.
- Develop after care plans in collaboration with patient, family and PCP to help patients better manage their wellbeing.
- Collection of home med list by pharmacy technicians.
- In patient medication management from pharmacist, who will work with Hospitalist or specialist.
- Patient and family medication counseling and education from Pharmacist.
- Scheduling follow up appointment with PCP before discharge.
- Appointment reminders, and confirmation with PCP that patient attended appointment.
- Assist patient in the navigation of medical/mental health care system for patient to remain functional in the community.
- Post discharge, social work navigator connects patient to financial or social services such as food, shelter and transportation.
- Additional connections include additional home care support, family support, support groups such as AA/Grief/NA.
- Referrals for hospice or palliative care as appropriate.
- Referrals to anticoagulation clinic, wound care, diabetes clinic, detox or behavioral health services.
- Home visits when necessary .
- Additional services will be contracted to assist with home care visit for select cohort.
- Routine calls to patients to assess ability to care for self, adherence to medication, monitoring of disease states.
- Communication with PCP or specialist regarding medication changes, optimization or identify redundancy.
- Whenever possible, collaboratively work with VNA services to assess patient's living conditions and ability to care for self.
- Rounding at SNF to ensure patient is discharged with appropriate services in place, and that medications are correct upon discharge.
- Creating Patient alert/Care plans for ED staff in conjunction with PCP (pilot program).

## Service model (2 of 2)

### Narrative description

#### Timeframe

##### *During Inpatient stay:*

- Pharmacy technicians collect home medication list in ED
- In patient medication management from Pharmacist, who will work with Hospitalist or specialist
- Patient and family medication counseling and education from Pharmacist in conjunction with inpatient staff
- Social worker delivers an inpatient assessment to HU and 30-day readmits to better understand readmission, and screens other patients who are at risk of becoming high utilizers. The screening also serves to assess social service needs and eligibility for palliative care consult. Connect to community/outpatient programs & services as appropriate.

##### *Post discharge:*

- Patients leaving **without** services, first contacted within 24-48 hours
- Patients leaving **with** services, first contact within 5 business days of discharge. Whenever possible, communicate with VNA services prior to D/C & within 2 days of discharge
- HU patients who are discharged to SNF will be rounded on by Mid-Level Provider

Patients will be managed for first 30 days. From there, some patients may move to scheduled check-in on a patient-by-patient basis. Patients who do not return within 30 days will be marked “inactive” but remain in the cohort for duration of program so as not to double count. There may be exceptions to this, for example if additional assistance is needed to coordinate outpatient services such as detox or behavioral health.

Paper patient alerts/community care plans will be created and stored in ED for select patients as a pilot (both BH and AGH). Plans will become electronic post EPIC go live.

# Service worksheet

Abridged Implementation plan – not for budgeting or contracting purposes

<u>Service Delivered</u>	<u>Personnel Type</u>	<u>Service Availability</u>
<ul style="list-style-type: none"> <li>• X Care transition coaching</li> <li>• Case finding</li> <li>• X Behavioral health counseling (connection to services)</li> <li>• X Engagement</li> <li>• X Follow up</li> <li>• X Transportation (connection to services)</li> <li>• X Meals (connection to services)</li> <li>• X In home supports</li> <li>• X Home safety evaluation</li> <li>• X Logistical needs (connection to services)</li> <li>• Whole person needs assessment</li> <li>• X Medication review, reconciliation</li> <li>• X Pilot testing of medication dispensing device</li> <li>• X Education</li> <li>• Advocacy</li> <li>• X Navigating</li> <li>• X Peer support (connection to services)</li> <li>• X Crisis intervention (Section 35)</li> <li>• X Referrals to Detox</li> <li>• X Motivational interviewing</li> <li>• X Linkage to community services</li> <li>• X Physician follow up</li> <li>• Adult Day Health</li> <li>• X Other: Connection to Housing/Shelters</li> <li>• X Other: Requesting palliative care consults</li> <li>• X Other: Requesting hospice consults</li> <li>• X Other: Coordination of blister packs (med management)</li> <li>• X Pilot test: Disease management using texting software</li> </ul>	<ul style="list-style-type: none"> <li>• Hospital-based nurse</li> <li>• Hospital-based social worker</li> <li>• Hospital-based pharmacist</li> <li>• Hospital-based NP/APRN</li> <li>• Hospital-based behavioral health worker</li> <li>• Hospital based psychiatrist</li> <li>• Community-based nurse</li> <li>• Community-based social worker</li> <li>• Community-based pharmacist</li> <li>• Community-based behavioral health worker</li> <li>• Community-based psychiatrist</li> <li>• Community-based advocate</li> <li>• Community-based coach</li> <li>• Community-based peer</li> <li>• Community agency</li> <li>• X Physician (Medical Director)</li> <li>• Palliative care</li> <li>• EMS</li> <li>• Skilled nursing facility</li> <li>• Home health agency</li> <li>• X Other: Clinical social work navigator who works externally from inpatient social work and case management</li> <li>• X Other: Pharmacist with retail background who works directly with patients</li> <li>• X Other: NP or PA navigator who works externally</li> <li>• X Other: Care coaches for home visits or Social Work Interns</li> <li>• X Other: Pharmacy technicians who work in ED collecting home med lists</li> <li>• X Non clinical staff include System Analyst and Program Manager and Performance Improvement Analyst</li> </ul>	<ul style="list-style-type: none"> <li>• Mon – Fri.</li> </ul> <p>Pharmacy tech will work 11:30-8:00PM at AGH.</p> <p>Pharmacy techs will work 8:00AM-11:00PM at BH.</p> <p>All other staff will work 8 hour weekdays, excluding holidays</p>

## Service mix (1 of 2)

Service	By Whom	How Often	For How Long
Collection of home medication list	Pharmacy technician	Every admission	Inpatient stay
Medication/therapy review during admission	RPh	Every admission	Inpatient stay
Medication review on discharge	RPh	Every discharge home	Inpatient stay
Discharge counseling/education	RPh	Every discharge home	Inpatient stay + post follow up
In-patient Social Work Assessment	Social worker	Every admission	Inpatient stay
Post-discharge PCP visit scheduled (or specialist as needed as related to admission)	Social worker	Prior to every d/c home (or immediately post-d/c if unable prior to d/c)	Inpatient stay
Post d/c phone call to pt/caregiver to check in	RPh, SW, NP	After d/c home: 1-2 days if no services, w/in 5 business days if services, repeat PRN, at least 1x prior to 30 day mark; prior to & after VNA or services d/c	30 days post discharge
Rounding or phone call to SNF for status/care plan after transfer, coordination of care on d/c home.	SW, NP	After transfer to SNF, within 7 days	30 days post discharge
VNA follow up, check in	RPh, SW, NP	Weekly for duration of VNA care	Post d/c; up to 30 days after d/c
Home Visits	SW, NP, RPh	As needed	30 days post discharge

Key:

NP/PA=Nurse Practitioner/Physician Assistant

SW=Social Worker

RPh: Registered Pharmacist

CHW=Community Health Worker

## Service mix (2 of 2)

Service	By Whom	How Often	For How Long
Home visits-evaluation, med rec, med eval/disposal, pill box filling, education	RPh	PRN	Post d/c-30 days of d/c
Home visit-eval for additional services, pt current status	SW, NP	PRN	Post d/c-30 days of d/c
MD phone call/fax re: recommendations or needed follow-up from in-pt or from out-patient findings/follow-up ph calls	RPh/PA or NP	PRN after each discharge, or changes in therapy, pt reports, new information	Ongoing
Follow up with patient/MD/pharmacy re: recommendations made	RPh/PA or NP	PRN after recommendations made-verify	Ongoing
Referrals for palliative care consults	SW or PA/NP	PRN	Post d/c-30 days of d/c
Referrals for psychiatric consults	SW or PA/NP	PRN	30 days
Assessment of home help/needs	SW	Within 1 week of d/c, PRN, prior to d/c or reduction in services & shortly after d/c of services	30 days
Phone call to PT after ED visit	Unknown-dep on cause of visit	After ED visit	30 days
In home risk assessment	NP, RPh, SW	For select high risk patients	30 days
# FTE/units of service to be hired/hired at my organization		2 FTE RPHs, 2 FTE SWs, 2 FTE NP, 2 FTE Pharmacy Techs, .17 FTE Physician Advisors = <b>8.17 FTE</b> <b>Note:</b> Per diem RN will fill in the NP role during the hiring process	

Key:

NP/PA=Nurse Practitioner/Physician Assistant

SA=System Analyst

SW=Social Worker

RPh: Registered Pharmacist

## List of service providers/community agencies (1 of 2)

Type of Service Provider	Community Agency Name	New or Existing Relationship
Retail chain pharmacies	CVS, Walgreens, RiteAid, Target, Walmart, Stop & Shop, Shaw's Osco Pharmacy, Hannafords	Existing + new
Retail community pharmacies-pt education services, delivery and compliance services (blister packing)	Conley's, Medicine Shoppe (Beverly), Custom Medicine Pharmacenter (Beverly)	Existing + New
Pharmacies-other	VA pharmacy, Eaton's Pharmacy (PACE/ESP), Pharmerica (GLC), Omnicare (LedgeWood), out-patient hospital pharmacies-Lahey, Dana Farber, Custom Medicine Pharmacenter (Beverly-compounding services)	Existing + New
Transportation	Senior Care, Senior center (volunteer based), CATA, CATA dial-a-ride, MBTA's THE RIDE, Beverly COA, Gloucester COA, American Cancer Society (for patients with cancer), Mobility Links, Veteran's Transportation Services, local taxi services, etc.	Existing + New
Housing	Gloucester Family Housing Authority; VA Housing, shelters, Beverly Housing Authority	Existing + new
Shelters	Action Shelter, River St, Pine St Inn (Boston), River House Shelter (Beverly), Inn-Between (Beverly), Salem Mission, Crombie Street Shelter for Men & Women (Beverly), etc.	Existing + new
Meals	Meals on Wheels, Cape Ann Food Pantry/Open Door, Senior Center, Beverly Bootstraps, Beverly Church of the Nazarene (Beverly residents only), First Baptist Church Beverly, Food Source Hotline-Project Bread (pre-screening for food stamps, resources for other free/low cost foods), Haven from Hunger (Peabody), Salem Mission/Food pantry, St. Joseph Food Pantry (Salem), local Salvation Army resources	Existing + new
Legal/court system	Gloucester District Court (section 35)	Existing + New
Financial services, Insurance	AGH Financial Liaison, referral to GFHC financial counselors,-future insurance & financial community resources, Senior Care Options (Commonwealth Care Alliance), MA Health	Existing + New
VNA	VNACN, LHAH, Able VNA, TLC	Existing + New
Managed Care Organizations	ACO-Lahey PHO (RN CM, Clinical RPh), PACE (aka ESP)	Existing + New
Peer Support/Self-Help Groups	Alcoholics Anonymous (AA), Narcotics Anonymous (NA)	Existing + New

## List of service providers/community agencies (2 of 2)

Type of Service Provider	Community Agency Name	New or Existing Relationship
Department of Mental Health (DMH)-Case Management and Providers	Community Based Flexible Support (CBFS) Services & their contracted case management & providers Eliot, Vinfen, Children, Friends & Family (CFF)	Existing + New
Hospice	Care Dimensions	Existing + New
SNFs and LTC facilities	GLC, DenMar, Seacoast, Kindred, Blueberry Hill, Ledgewood, Brentwood, Pilgrim, Reservoir, Spaulding, Hunt, Essex Park, Kaplan Family Hospice House,	Existing + New
Diabetes Care-RN educator, dietitian, endocrinologist	Lahey Outpatient Center; Lifestyle Management Institute	Existing + New
Behavioral Health/Substance Abuse	Lahey Health Behavioral Services, Bayridge, Leland, Danvers CAB, Discover Program, Center from Healthy Aging, Health and Education Services, Senior Adult Unit (AGH)	Existing + New
Elder Services	Senior Care/Protective Services	Existing + New
PCPs-new referrals	GFHC (Dr. Hollett, Dr. Kulscar,), North Shore Community Health Center, Lahey Health Primary Care	Existing + New
PCPs-follow ups	Dr. Carabba, Dr. Pearce, Dr. Esdale, Dr. Damico, Dr. Jouhourian, Dr. Barrett, Dr. Celestin, Dr. Maguire, Dr. Doran, Dr. Isaac, Dr. Pultar, Dr. Pawson, Dr. Thompson, Dr. Jimnez, Dr. Wedmore, Dr. Bochman, Dr. Davis, Dr. Smith, Dr. LaBarge, Dr. Vando, Dr. Mayer, Dr. Werner, Dr. Oman (VA), Dr. Hollett (GFHC), Dr. Kulscar (GFHC), Christine Malagrida (GFHC), et all	Existing + New
Specialists-referrals and follow-up	Endocrine, podiatry, GI, neurology, pain, pulmonology, infectious disease, cardiology, psychiatry, hemeatology/oncology, wound care	Existing + New
Care Coordination-Follow up care/care transitions providers	PCMH Clinic @ Lahey	New
Medication Management	Lahey Enhanced Care Service (aka Dovetail), some select pharmacies	Existing + New
Coumadin clinic	Cape Ann Medical Center; Lahey Lifestyle Management Institute (Outpatient Center, Danvers)	Existing + New



# Summary of services (1 of 2)

## Clinical service and staffing mix

### Patient Identification/ Acute Care Presentation:

#### *ED Status/prior to admission:*

1. Flags in ED registration system (EPIC) will identify target population upon presentation to ED.
2. ED CM reviews all target population patients in ED to see if an individual care plan is in place to inform ED staff.
3. ED CM pages HRCT PM (or NP or SW) to let team know patient is in the ED (Team will also know from ongoing EPIC feed)

#### *Inpatient or Obs Status:*

1. HRIT SA reviews daily census of all admissions to identify admitted patients who meet target pop criteria.
2. Patients are imported into patient tracking software, and enrolled
3. HRIT SA assigns patients to HRIT social workers for assessments and pharmacists for medication review

### Hospital-based Processes

1. Pharmacy technician obtains current medication list upon admission
2. HRIT SA reach out to any other programs patient is enrolled in (ACO, PACE, SCO) to avoid duplication of services.
3. HRIT SW conducts a patient assessment while inpatient for social history to better understand why the patient felt they had been readmitted.
4. HRIT team huddles daily to discuss cohort and assign responsibilities
5. HRIT team attends multidisciplinary rounds to review plan of care while inpatient
6. Patient assessment will screen for patients who are eligible for palliative care referrals
7. HRIT SW assesses gaps and barriers in care through interactions with patient and family, case managers and social workers.
8. HRIT SW collaborates with inpatient care coordination for social needs that can be addressed while inpatient.
9. HRIT Pharmacist collaborates with Hospitalist on medication optimization
10. HRIT Pharmacist engages directly with patients and family/caregivers for medication counseling, including affordability
11. HRIT team reviews post discharge care plan
12. HRIT SW places referral to Community Health Worker or social work intern, at least 24h prior to discharge when possible.
13. For patients discharged with services, HRIT NP/PA reaches out to VNA before patient is discharged.
14. HRIT SW schedules follow up appointments with all relevant clinicians prior to discharge

#### Key:

NP/PA=Nurse Practitioner/Physician Assistant

SA=System Analyst

SW=Social Worker

RPh: Registered Pharmacist

## Summary of services (2 of 2)

### Clinical service and staffing mix

#### Post-Hospital Transitional Care Services

1. HRIT SW or SW intern will call patients to remind them about appointments, and confirm they can get there.
2. HRIT SA will follow up with provider offices to ensure that patients attended appointments and notify the HRIT PM if a patient has missed an appointment.
3. HRIT team huddles daily to discuss post discharge cohort
4. HRIT Pharmacist conducts in-home post discharge medication reconciliation as needed and communicates with prescribers regarding medication changes and optimization recommendation.
5. HRIT NP may reassess patient in home clinically after discharge and assists patient in the navigation of medical/mental health care system, reassesses patients periodically for the need to refer and link to hospice or palliative care Coumadin clinic, wound care, diabetes clinic, detox or behavioral health services.
6. HRIT NP/PA collaborates on behalf of HRIT with VNA and SNF to ensure coordination, specifically managing post-SNF transitions.
7. HRIT Social Work Navigator follows BRIDGE model of transitional care, connecting patient to financial or social services such as food, shelter and transportation, home care support, family support, support groups. SW or other HRIT member calls patients at least weekly for 3 weeks to reassess needs over time.
8. HRIT NP/PA ensure that the individual care plan is updated and communicated to all relevant providers.
9. Social worker or social work intern conducts at least 1 in-home visit <48h of discharge for patients discharged without services.
10. Follow up home visits may include Community Health Worker, Pharmacist, SW or NP/PA as needed.
11. Referrals for outpatient services may be coordinated via NP/PA, Pharmacist, or social worker.

#### Pilot Programs

1. Use of blister packs to improve medication compliance for select cohort of patients
2. Subsidizing medications or spacers for inhalers as needed to improve compliance
3. Subsidizing other patient needs such as cab vouchers

## Cohort-wide standard measures – Hospital utilization measures

Data elements	All	Target Population
1. Total Discharges from Inpatient Status ("IN")	x	x
2. Total Discharges from Observation Status ("OBS")	x	x
3. SUM: Total Discharges from IN or OBS ("ANY BED")	x	x
4. Total Number of Unique Patients Discharged from "IN"	x	x
5. Total Number of Unique Patients Discharged from "OBS"	x	x
6. Total Number of Unique Patients Discharged from "ANY BED"	x	x
7. Total number of 30-day Readmissions ("IN" to "IN")	x	x
8. Total number of 30-day Returns ("ANY BED" to "ANY BED")	x	x
9. Total number of 30-day Returns to ED from "ANY BED"	x	x
10. Readmission rate ("IN readmissions" divided by "IN")	x	x
11. Return rate (ANY 30-day Returns divided by "ANY BED")	x	x

# Cohort-wide standard measures – ED utilization measures

Data Elements	All	Target Population
12. Total number of ED visits	x	x
13. Total number of unique ED patients	x	x
14. Total number of ED visits, primary BH diagnosis		
15. Total number of unique patients with primary BH diagnosis		
16. Total number of ED visits, any BH diagnosis		
17. Total number of unique patients with any BH diagnosis		
18. Total number of 30-day ED revisits (ED to ED)	X	x
19. Total number of 30-day revisits (ED to ED), primary BH diagnosis		
20. Total number of 30-day revisits (ED to ED), any BH diagnosis		
21. ED revisit rate	x	x
22. ED BH revisit rate (primary BH diagnosis only)		
23. ED BH revisit rate (any BH diagnosis)		
24a. Median ED LOS (time from arrival to departure, in minutes)		
24b. Min ED LOS (time from arrival to departure, in minutes)		
24c. Max ED LOS (time from arrival to departure, in minutes)		
25a. Median ED LOS (time from arrival to departure, in minutes), primary BH diagnosis		
25b. Min ED LOS (time from arrival to departure, in minutes), primary BH diagnosis		
25c. Max ED LOS (time from arrival to departure, in minutes), primary BH diagnosis		
26a. Median ED LOS for ED boarders per DPH boarder definition (patients with a primary behavioral health diagnosis who remain in the ED for 12 or more hours from ED arrival to ED departure)		
26b. Min ED LOS for ED boarders per DPH boarder definition (patients with a primary behavioral health diagnosis who remain in the ED for 12 or more hours from ED arrival to ED departure)		
26c. Max ED LOS for ED boarders per DPH boarder definition (patients with a primary behavioral health diagnosis who remain in the ED for 12 or more hours from ED arrival to ED departure)		

# Cohort-wide standard measures – Service delivery

Data elements	Target Population
27. Total number of unique patients in the target population	x
28. Number of acute encounters for target population patients	x
29. For acute encounters in measure #28, number of these with any CHART service provided after discharge and within 48 hours	x
30. Total number of contacts for the target population	x
31. Average number of contacts per patient served	x
32a. Min number of contacts for patients served	x
32b. Max number of contacts for patients served	x
33. Number of units of service provided by service modality (including, e.g., phone call, virtual interaction, face to face in office, face to face in home, etc.)	x
34. Number of units of service provided, by service types (e.g., care coordination, medication optimization, clinical care, counseling, needs assessment, etc.)	x
35. Number of units of service provided, by role type (NP, LICSW, Pharmacist, Community Health Worker, Peer)	x
36. Average time (days, months) enrolled in CHART program per patient	x
37. Range time (days, months) enrolled in CHART program per patient	x
38. Proportion of target population patients with care plan	x

# Cohort-wide standard measures – Payer mix

Abridged Implementation plan – not for budgeting or contracting purposes

Data elements	Medicare	Medicaid	Commercial
39. Count of patients in the Target Population	x	x	x

Beverly Hospital – Version 5

## Program-specific measures

Updated Measure Definition	Numerator	Denominator
% MOLST form on file among target population	# with MOLST form on file	Total (enrolled) Target population
Percentage of patients overlap with PACE	# of PACE patients	Total (enrolled) Target population
Social Needs Assessment	# collected during inpatient stay	Total (enrolled) Target population
% of target population with PCP appointment made for <7 business days	# with PCP appointment made	Total (enrolled) Target population
% of pharmacist interventions (education, modifications, etc.)	# pharmacist interventions	Total (enrolled) Target population
% of admitted patients who have home med list collected by pharmacy technicians	# of home med lists collected by technicians	Total # patients admitted
Total Discharges to SNF	Count	n/a
Total Discharges to Home Health	Count	n/a
Total Discharges to Home	Count	n/a
% of patients who are discharged to shelter or other	# number of patients who have been discharged without permanent housing	Total (enrolled) target population with a "Home" discharge disposition

# Continuous improvement plan (1 of 2)

<b>1. How will the team share data?</b>	Team will create weekly dashboards. Team will huddle with other organizations (ACO, Care Dimensions, Lahey Health at Home on a daily basis as needed) Team will report to executive leadership monthly
<b>2. How frequently will you (PM, Investment Director) look at the data (e.g., weekly)?</b>	Daily. Our ideal system will have daily schedules and exception reports which will show outstanding tasks.
<b>3. How often will your executive team (VPs, C-suite) review CHART project reporting (e.g., monthly)?</b>	Monthly, see #1.
<b>4. How often will your front line CHART staff (SW, care team) review reporting (e.g., weekly)?</b>	Daily, see #2.
<b>5. How often will your community partners review data (e.g., weekly, monthly)?</b>	Depending on the partner, it may be daily, or monthly. See #2.
<b>6. Which community partners will look at CHART data (specific providers and agencies)?</b>	Any BH or AGH employee will be able to review, but their access may be restricted to top level dashboards. We believe in collaboration, and want to have working partners who are engaged in this effort.
<b>7. Will the quality committee of your board review CHART reporting (e.g., quarterly)?</b>	Monthly.



## Continuous improvement plan (2 of 2)

8. Who will collect measures and produce reporting for Cohort-wide and program specific measure (e.g., Data Analyst, PM, ID)?	Cohort-Wide	Program specific
	System Analyst in HRIT, Data Analyst data will be imported.	System Analyst in HRIT, Program Manager
9. What is your approximate level of effort to collect these metrics?	Cohort-Wide	Program specific
	Low to medium	Low to medium
10. How will you ensure that you are able to collect both your program specific and the cohort-wide measures?	Our PI Analyst, Nancy Miller, is very engaged in our grant activity. She has worked with us on CHART 1, and is also the individual who runs the system wide readmission numbers. She is setting up the automated reports and will work with us on system integration	
11. How will you know when to make a change in your service model or operational tactics?	Data, patient/care giver, provider or other feedback.	

# Enabling Technologies plan

Functionality	User	Vendor	Cost
<b>Patient tracker/Scheduling tool</b> <ul style="list-style-type: none"> <li>• Patient cohort will be imported into software daily. Any changes such as OBS to Inpatient will be recorded. All ED visits will be updated.</li> <li>• Additional demographics can be added as required.</li> <li>• SaaS model that can share data with various levels of access</li> <li>• Day to day activities: For each patient, follow up calls, home visits or other actions can be scheduled.</li> <li>• Scheduled tasks can be assigned each day to HRIT staff. These assignments can be closed out, or reassigned to other team mates.</li> <li>• Outcomes such as referrals can be tracked by date, service type and outcome.</li> <li>• This tracking tool helps the team ensure that patient related activities are completed, and creates an easy way to run reports.</li> </ul>	System access – cloud based	Loopback Analytics	\$183,000 (including software and setup fees)

# Enabling Technologies plan - Q&A

- **How are you going to identify target population patients in real-time?**
  - We will use various criteria to identify at risk criteria for patients. For example, homeless would be a red flag for us. Or, frequent ED visits in last 6 months plus active hospitalization would be another. Also anyone who has had a readmission in the last 30 days. The daily census reports will be set up to filter for our criteria and will import into Loopback. This criteria will be adjusted as we learn more.
- **How will you measure what services were delivered by what staff?**
  - We will run weekly dashboards to assess our progress
- **How will you measure outcome measures monthly?**
  - Loopback analytics will be available to all BH, AGH employees and our ACO.
- **What tool/platform will you use to facilitate cross-setting and multi-disciplinary coordination of care?**
  - Where will individual care plans reside, and what is the plan for making them available on a need-to-know basis 24/7 in the ED, hospital, and ambulatory settings? For the initial Pilot, they will be in paper format. They will be left with the case managers in the ED. Our pharmacy technician will also be trained to look for our patient flags in the system and will prompt the case managers to pull the care plans and review with provider. We will move to electronic after EPIC implementation.
- **Where will individual care plans reside, and what is the plan for making them available on a need-to-know basis 24/7 in the ED, hospital, and ambulatory settings?**
  - For the initial Pilot, they will be in paper format. They will be left with the case managers in the ED. Our pharmacy technician will also be trained to look for our patient flags in the system and will prompt the case managers to pull the care plans and review with provider. We will move to electronic after EPIC implementation.
- **Do you have a method for identifying what clinical services your target population accesses?**
  - This will be a mix of resources. Currently, Meditech alerts our team when our patients are in ED or have been admitted. Meditech remembers patients that you have viewed and keeps them in a queue. Data feeds can be set up to pull some of the other information, such as homecare or rehab orders. As Lahey employees, Lahey Health at Home will have access to our system, which will allow us to share information electronically. At this point, the SNF discharge information will be entered manually by our mid level provider who is tracking those patients.

## Other essential investments

Other Investments	Budget Required
System Analyst – to analyze CHART project data	\$116,655
Misc. Patient expense fund: Examples: Blister packs for at-need patient population, Subsidizing medications, co pays, or spacers for inhalers. Also, funding other needs such as cab vouchers.	\$60,000
Training: Online certificate programs from UMass Medical School in Motivational Interviewing (\$1000 pp), Integrated Care Management (\$800 pp) training – training for 15.	\$27,000
Training: Safer Healthcare Teams training for HRIT staff, ED staff and Hospitalists – 80 people trained including backfill for staff training time.	\$58,000
Staff time for Nurse Educators to train nursing staff in Teachback – over 150 nurses to be training.	\$10,000
Equipment: Work Station on Wheels for ED Pharmacy Technicians.	\$7,500
License + Fees for NP/PAs – CME expense (\$1500 pp/annually), license renewal (\$180), MA controlled substance (\$150), Federal DEA(\$731).	\$8,122
Travel for staff to patient homes and travel between Addison Gilbert Hospital and Beverly Hospital	\$20,000

## Key dates

Key milestone	Date
Launch date (beginning of your 24 month Measurement Period)	11/1/15
Post jobs	9/4/15
New hires made	Ongoing
Execute contract with Loopback	10/15/15
Initiatives support 50% of planned target population capacity	11/30/15
Initiatives support 100% of planned target population capacity	2/1/16
First test report of required measures	10/31/15
Enabling technology – Loopback testing initiated	11/30/15
Enabling technology – Loopback go-live	12/31/15
EPIC training	14 days post hire
Process training for clinical staff	14 days post hire
Loopback training	5 days post implementation or hire
Integrated care management training, motivational coaching, and collaboration training	TBD
First patient seen	11/1/15

# Community partners and subcontractors

Name	Business Address	Website	Contact Name	Contact Title	Contact Phone Number	Contact Email Address
Loopback Analytics	14900 Landmark Blvd. Ste. 240, Dallas, TX, 75254	<a href="http://www.loopbackanalytics.com">www.loopbackanalytics.com</a>	Melissa Rowley	Director, Business Development	312-485-9923	mrowley@loopbackanalytics.com

Abridged Implementation plan – not for budgeting or contracting purposes